1	2	3	4
20.	M/s Rallis India Ltd.	Ethephon	100
21.	M/s. Hindustan Insecticides Ltd.	Carbofuran	800
Industrial Licences			
1.	M/s. Gujarat Insecticides	Chlrophyriphos	200
2.	M/s. BASF India Ltd.	Cypermethrin	40
3.	M/s May & Baker India Ltd.	Isoproturon	400
4.	M/s. Devidayal (Sales) P. Ltd.	Methyl Parathion	500
5.	M/s. Rallis India Ltd.	Atrozine, Simazine	50 each
6.	M/s. Southern Pesticides Corpn.	BHC (26%)	3300
7.	M/s. Hocehst India Ltd.	Isoproturon	400
8.	M/s. JKBM Ltd.	Butachlor	200
9	M/s. Pyrapur Chemicals Ltd.	Decamethrin	200
10.	M/s Rellis India Ltd.	Acephate	100
11.	M/s. Atul Products Ltd.	Tetradiforn	50
12.	M/s Atul Products	Isoproturon, Metoxuron	100 each
13.	M/s JKBM Ltd.	Thiram	200T PA

Comparative cost of power production from various sources

*338. SHRI SHANKER SINH VAGHELA:
SHRI PRAMOD MAHAJAN:

Will the Minister of ENERGY be pleased to state:

(a) the comparative cost of production of power per unit from gas based thermal plants, coal-based thermal plants, hydel, nuclear power plants, wind solar units and micro hydel units; and

(b) the locations of gas-based power plants which are either already in commercial operation or have been approved for being set up or are waiting for approval with estimated capacity in each case?

THE MINISTER OF STATE IN THE DEPARTMENT OF POWER IN THE MINISTRY OF ENERGY (SHRI KALP NATH RAI): (a) The average estimated cost of power per unit generated from different types of generating units recently appraised in the Central Electricity Authority/Department of Atomic Energy/Department of Non-Conventional Energy Sources are as follows:—

Type of generation project	Approximate cost of power per unit
1. Gas based thermal	36 to 87 paise/Kwh.
2. Coal based thermal	41 to 90 paise/Kwh.
3. Hydel	19 to 80 paise/Kwh.
4. Nuclear	41 to 49 paise/Kwh.
5. Wind Power	Rs. 1.25 to Rs.1.50 /Kwh.
6. Solar	Electricity is not being generated commercially in the country using solar thermal technology as on date.
7. Micro Hydel	70 to 75 paise/Kwh.

(b) The requisite information is given in Annexures I to V.

Annexure-I

Gas based power projects already commissioned during the 7th Plan period

S. No.	Name of the Project	Unit No.	Capacity (MW)
Maharashtra			
1.	Uran Gas Turbine	Unit-7	108
		Unit-6	108
		Unit-5	108
		Unit-8	108
Assam			
1.	Lakwa Gas Turbine	Unit-4	15
Tripura			
1.	Baramura Gas Turbine	Unit-1	5
		Unit-2	5
		TOTAL :	457

Annexure-II

Gas based power projects expected to be commissioned during the remaining period of 7th Plan.

Sl. No.	Name of the Project	Unit No.	Capacity (MW)
	Rajasthan:		
1.	Anta Combined Cycle project (NTPC) Gas Turbine.	Unit-1	100
		Unit-2	100
		Unit-3	100
2.	Ramgarh Gas Turbine		3
	Uttar Pradesh :		
1.	Auriya combined cycle Project (NTPC) Gas Turbine	Unit-1	100
		Unit-2	100
		Unit-3	100
		Unit-4	100
	Tripura :		
1.	Rokhia Gas Turbine	Unit-1	8
		Unit-2	8
2.	Baramura Gas Turbine (NEC)	Unit-3	5
		TOTAL :	724

Annexure-III

Sanctioned Gas Based Power Projects expected to be Commissioned beyond the 7th Plan Period

Sl. No.	Name of the Project	Unit No.	Capacity (MW)
1	2	3	4
	Rajasthan :		
1.	Anta combined cycle project (NTPC) Steam Turbine	Unit-1	130
	Uttar Pradesh :		
1.	Auriya combined cycle Steam turbine	Unit-1	100
		Unit-2	100

1	2	3	4
	Gujarat :		
1.	Kawas combined cycle Project-Gas Turbine . .	Unit-1	100
		Unit-2	100
		Unit-3	100
		Unit-4	100
	Steam Turbine	Unit-1	100
		Unit-2	100
	Maharashtra :		
1.	Uran Wate heat plant	Unit-1	120
2.	Uran Waste heat plant	Unit-2	120
	Andhra Pradesh :		
1.	Narsapur combined cycle project	Unit-1&2 (Gas Turbine)	2x33
	Steam Turbine	Unit-1	1x33
	Assam :		
1.	Lakwa Gas Turbines		4x15
2.	Lakwa Waste Heat Plant		22
3.	Kathalguri combined cycle (NEEPCO) . . .	Gas Turbine	6x30@
		Steam Turbine	3x30
			1621

@This capacity may be anywhere between 30 MW to 40 MW.

Annexure-IV

Schemes for setting up Gas Turbine Power Plants awaiting investment Decision

Sl. No.	Name of the Project	Capacity (MW)
1	Combined Cycle Gas turbine plant at Lakwa—NEEPCO (Assam).	6x30 GT + 3x30 ST= 270
2.	Combined Cycle G.T. at Dadri NTPC (Uttar Pradesh)	4x100 GT+ 2x100 ST= 600
3.	Additional G.T. Station at Rokhia (Tripura) .	10x7.5= 75
4.	Gandhar G.T. Combined Cycle TPS in District Bharuch (Gujarat)	4x100 GT+ 2x100 ST= 600
5.	Combined Cycle Power Plant at Utran GEB (Gujarat).	135
	TOTAL :	1680

Annexure-V

Proposals for Gas Turbine Power Plant awaiting Techno-Economic Clearance

Sl. No.	Name of the Project	Capacity (MW)
1.	Mobile G.T. Sets at Yenugavani Lanka (APSEB) Andhra Pradesh.	3x3—9
2.	Gas based combined cycle power project in South Saurashtra near Pipevav—GEB (Gujarat).	(500 GT +250 ST=750)
3.	Gas based power plant at Ballabgarh (HSEB) (Haryana)	(8x27)=216
4.	Gwalior GT Combined Cycle TPS-MP . .	3x100 GT + 1x105 ST=450
5.	Jhatua GT Combined Cycle TPS-MP . . .	3x100 GT + 1x150 ST=450
6.	Rajgarh GT Combined Cycle TPS (Madhya Pradesh)	3x100 GT + 1x150 ST=450
7.	Guna GT Combined Cycle TPS (Madhya Pradesh) .	3x100 GT + 1x150 ST=450
8.	Combined Cycle GT Power Plant at Anguri—Assam .	8x30 GT + 4x30 =360

O.N.G.C. proposal for Research Institute in Andhra Pradesh

*339. DR. NARREDDY THULASI REDDY:

SHRI MOHD. KHALEELUR RAHMAN:

Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

(a) whether there is any proposal by O.N.G.C. to set up a research institute in Andhra Pradesh; and

(b) if so, what are the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF PETROLEUM AND NATURAL GAS (SHRI BRAHM DUTT): (a) No, Sir.

(b) Does not arise.

Manufacture of Paraxylene by Bharat Petroleum

*340. SHRI A. G. KULKARNI:

DR. BAPU KALDATE:

Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

(a) whether Government's attention has been drawn to the news item which appeared in the Blitz dated the 1st October, 1988 captioned "The Paraxylene Puzzle" alleging that the bureaucrats had delayed the Bharat Petroleum project to manufacture paraxylene;

(b) if so, what are the reasons for delay in manufacturing of paraxylene by Bharat Petroleum; and

(c) whether Government have any belief in the public sector at least in these profitable lines of petrochemicals and its projects and if so, whether any effort has been made to reserve such projects for public sector?